

AMENDMENT TO THE CLAIMS

The following claim listing replaces all prior listings and versions of the claims:

LISTING OF CLAIMS

1. (Currently Amended) A fuel cell system comprising:

a fuel cell comprising an anode, a cathode, and an electrolyte interposed between said anode and said cathode; and

a purifying apparatus comprising a catalyst layer that purifies an effluent discharged from said anode,

wherein said purifying apparatus has a porous sheet including said catalyst layer and has a first flow path and a second flow path respectively disposed on one side and the other side of said porous sheet,

said first flow path has an inlet into which the effluent discharged from said anode is introduced,

said second flow path has an inlet into which air is introduced and an outlet, and

the effluent discharged from said anode is always passed through said porous sheet and discharged from said outlet, and the effluent is directed to said porous sheet without being mixed with the air in advance.

2. (Original) The fuel cell system in accordance with claim 1, wherein said fuel cell is a direct-type fuel cell in which an organic fuel is directly supplied to said anode and air is supplied to said cathode.

3. (Original) The fuel cell system in accordance with claim 2, wherein the effluent

discharged from said anode is collected and purified without being supplied to the anode again.

4. (Previously Presented) The fuel cell system in accordance with claim 1, wherein said porous sheet has a layered structure further comprising porous diffusion layers that sandwich the catalyst layer.

5. (Previously Presented) The fuel cell system in accordance with claim 1, wherein the air introduced into said second flow path includes air discharged from said cathode.

6. (Original) The fuel cell system in accordance with claim 1, wherein a temperature inside said purifying apparatus becomes 30 to 80 °C.

7. (Previously Presented) The fuel cell system in accordance with claim 1, wherein a catalyst in said catalyst layer consists of platinum or comprises an alloy or a mixture comprising platinum and other metal, and said other metal is at least one selected from the group consisting of ruthenium, iron, cobalt, nickel, chromium, molybdenum, rhodium, palladium, osmium, and iridium.

8. (Original) The fuel cell system in accordance with claim 2, wherein said organic fuel includes at least methanol.

9. (Previously Presented) The fuel cell system in accordance with claim 1, wherein a temperature inside said purifying apparatus becomes 20 to 60 °C.

10. (New) A fuel cell system comprising:

a fuel cell comprising an anode, a cathode, and an electrolyte interposed between said anode and said cathode; and

a purifying apparatus comprising a catalyst layer that purifies an effluent discharged from said anode,

wherein said purifying apparatus has a porous sheet including said catalyst layer and has a first flow path and a second flow path respectively disposed on one side and the other side of said porous sheet,

said first flow path has an inlet into which the effluent discharged from said anode is introduced,

said second flow path has an inlet into which air is introduced and an outlet, and

the effluent discharged from said anode is intersectionally passed through said porous sheet and discharged from said outlet, and the effluent is directed to said porous sheet without being mixed with the air in advance.